Fremont Coll.

√ 417. 1845. = Aplopappus spinulosus.

√ 35. " cf. A. rubiginosus, Torr. & Gr.—but more intricated involucres.

√ 452. 1846. Grindelia squarrosa? approaching G. robusta. Nutt.

√ 20. 1845. Chrysopsis canescens var. connecting with C. foliosa. Nutt.

√ 77 " " canescens—very hispid var.

√ Ee. 1846. " I suspect new.— (C. lanata)

√ 1846—(In parcel to return is the same.

√ 292. 1845—Some Aster, all mouldy & falling to pieces—probably some common one.

√ C. 1846. Baccharis viminea. DC—fertile pl.!—before unknown—Douglas', ~~Nutt~~ Coulter, & Hartweg's are masc.

√ 223. 1845. Baccharis salicina.

√ Dd. 1846 B. consanguinea DC.

√ 33 1845 Melampodium leucanthum.

Gutierrezia Euthamiae.—

√ 186. "

√ L. 1846 Wyethia n. sp. call it W. ~~macro~~megacephala.—

~~It is~~ The same is in Hartweg's coll. 1784. but young & floccose-woolly all over. I think it perhaps ~~too~~ not too late to name it & put it in a note— ~~But~~ I shall print it before Bentham gets so far. What say you?

P.S. I have changed my mind about this, and now think it the W. Alarconia helenioides, DC* but diff. from any in Flora. We will wait & see what Bentham (who has the orig.) makes of it.)

√ 282. 1846. Balsamorhiza macrophylla. Nutt. young.

√ 34. 1845 Helianthus petiolaris. Nutt

√ 21. 1845 = Heliomeris Nutt in Gambel Pl.! either his spec. or an ally. How large is your plant. How long the cauline leaves. [= Helianthus, without any pappus.

TORREY [illegible] REFERENCE
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* "Inulae Helenii facie ferentes" DC.

* Capit.

Fremont

√ no 6. 1845, = Dieteria coronopifolia.
√ " 481 "   " viscosa. Nutt. }
√ 367 "   "   "
√ 36 "   "
√ 105 " }
√ 365 " }   " pulverulenta.
√ 255 " }   Probably same, but too mouldy.
√ 180 " }
√ Kk. 1846. Corethrogyne virgata. Benth. Sulph.
√ 58, 1845 Aster laevis.
√ 420 "   A. multiflorus, vars
√ 375 "   A. simplex ?
√ 31 "   A. Novae-Angliae
√ 12 "   A. multiflorus. α
√ 232 " same as 420.
√ 64 " Seems to be A. Nuttallii, or new.— (Nutt.'s specimen is poor).
√ 167   A. adscendens.
√ 394 "   Aster, new, to all appearance — where does it probably come from? (371. returned, is same. but approaches A. adscendens. But too poor specimens — all mouldy
√ 242 "   A. laxifolius. —
– 282 "   Aster — too poor to tell.
√ Ii. 1846   Erigeron glaucum Ker.
√ 85 & √ 88, 1845   E. glabellum.
√ 275, 1845.   E. Philadelphicum
Aster salsuginosus β ?? very mouldy.
√ 12 "   E. (Pseuderigeron) Douglasii ~~Nuttallii~~. Glad to see this.
√ 498, 1846.   (Hartweg also has it. I divide with you.)
√ 54. 1845. Gutierrezia divaricata, Nutt
√ Gg. 1846. Solidago Californica β.
√ Ff. 1845? S. multiradiata ?
√ 22. 1845. S. Canadensis.
72 " (returned) = Aster multiflorus γ.
√ 427, 1845. }
√ 160. " }
17. " } apparently all Linosyris graveolens.
√ 306 " }
√ 244 " }
√ 464 " }

Fremont. Continued

√ 299, 1846. Chaenactis heterocarpha. Torr. & Gr. n. sp. — (also in Pl. Hartweg. So I have secured it.)

Line of the Joaquin. March. 1846. = Monolopia major.

√ 62, 1845. Artemisia filifolia —
√ 22 " (not Artemisia, but) Salix —
√ 296 " A. Canadensis
√ P, 1846. Matricaria discoidea.
√ 374 " Artemisia frigida.
√ O. " A. Californica, Less.! (& A. Fischeriana, Bess. Ledeb.!
√ 386 " A. tridentata.
√ 385} 1846 Artemisia not in my herb. from char. probably
√ 463) A. Lindleyana. Bess.
√ 236 1845. Antennaria alpina.?
√ N. 1846 Senecio Californicus DC.!
√ 41. 1845 S. filifolius. a Lanesii
√ 326. 1846. S. eurycephalus. Torr & Gr. ined (also in Hartweg)
√ 202 " Crocidium multicaule. Hook.
√ 164 1845 Arnica latifolia, Bongard
√ 399 1846. Cirsium undulatum (C. Douglasii DC.)
√ H " Stephanomeria paniculata. Nutt — (apparently)
√ 68, 1845. Troximon glaucum, Nutt.
√ 279 1846 Macrorhynchus heterophyllus, Nutt. (Chilensis, Hook.
√ 248 " " same with finely pinnatifid leaves, or new sp.
(no fruit &c.)
√ 183 " " heterophyllus — pretty large.

Coll. Fremont. Continued.

✓ No. 479. 1845 = Hymenoxia [illegible]
✓ 302 " = Dyssodia chrysanthemoides.
✓ 39. " = Gaillardia pinnatifida. B.
✓ 241 " G. aristata.
✓ 333 " 1846. = Bahia lanata.
same – more slender. –
✓ Aa " B. lanata. β tenuifolia.
✓ Bb. " Burrielia gracilis, DC.
✓ 169 " B. (Baeria) chrysostoma –
✓ 278 " Dichaeta – a new species – well-marked (D. Fremontii Torr.
✓ 289 "
✓ 369 & 404 1845. Actinella Richardsonii, var.
✓ 294. 1845. Amauria?? dissecta, n. sp. in Pl. Fendl.
✓ M. 1846 Layia (Callichroa) platyglossa.
(Calliachyris) Fremontii
✓ 318 " " platyglossa, var. setis papp. tenuioribus quam in M.
✓ 176 " "
Layia elegans. Nutt.
✓ 177 " Madaria elegans, leaves
✓ T. 1846 " narrower.
✓ U " "
✓ 478. " Hemizonia n. sp. allied to H. pungens, but very distinct. (Not in Hartweg, I do not describe it there pre, ~~[illegible]~~) ~~[illegible]~~ Compare with E. Exped. Pl.

✓ R. & S " H. angustifolia – or near. – (but not Pl. Fl. N. Am.) [= H. decumbens, Nutt. Pl. Gamb.]
✓ Q. " 1846. Calycadenia – Very remarkable n. sp. verging to Hemizonia – – must form a §. (C. virgata)
✓ V. " Hemizonia n. sp. combines § 5 & 6. – (H. viscosissima (cf. with H. nudis. Barth.)
✓ 505 " Calycadenia cephalotes. DC.
✓ T. " Calycadenia. n. sp. connects with § Osmadenia some fl. leaves with terminal glands: others not.
✓ W " Calycadenia – another. n. sp. 3-disk fl. one ray

Not in Pl. Hartweg; nor I do not describe them [illegible]

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Fremont.

✓447. 1846, Ribes cereum, young.

✓159 " R. glutinosum. Dougl.

✓372 " R. Californicum. H. & A.!

✓366. " & probably } Sicyos? Same as 199. Coulter & a plant

✓555 " from Calif. Chamisso, — of which I ~~have~~
the vestiges of a singular, large, prickly fruit.

✓273 " Sedum spathulifolium?
Echeveria lanceolata?

✓489 " "Saxifraga (Limnopeltis) elata" Torr. — A grand thing. —

✓155. " pity it should not be called peltata, but surely
not elata; since there has lately been one of Nutt.
Except the leaves, it would seem to belong to the same
section with S. crassifolia, &c. of the Himalaya.
do call it S. peltata.

✓413. " Lithophragma glabra, Nutt. (cf.)

✓511 " Philadelphus Lewisii.

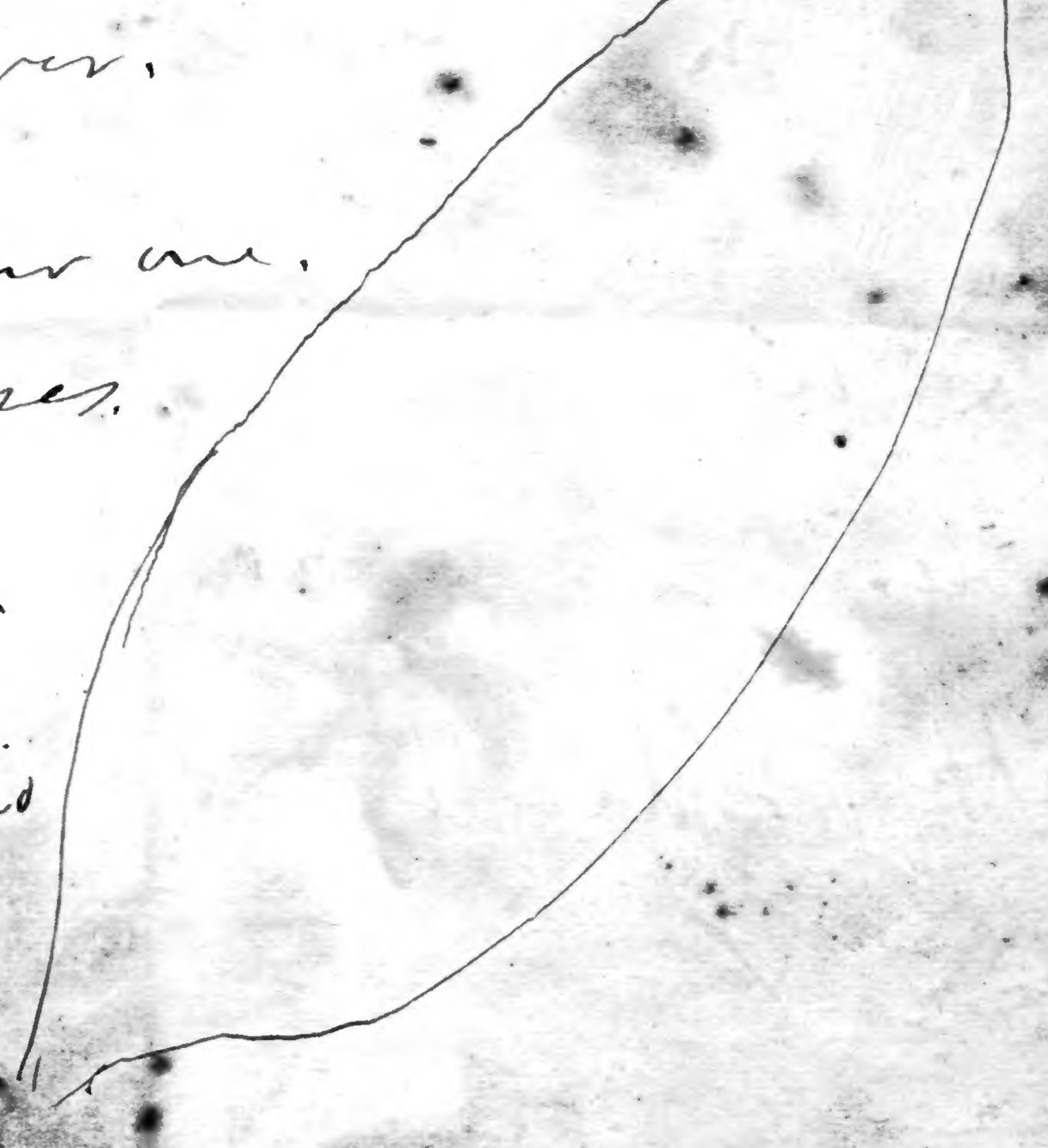
Wednesday 27 Sept. 1848.

HERBARIUM COLUMBIA UNIVERSITY

I have just got my set of Hartweg's Calif. Coll- the "3d coll." — so that it should be pretty full: — as I open it I put your sheet before me to make any notes that occur as I turn them over.

1629 is Myosurus probably Bentham's new one.

1641 a Dendromecon with large oblong leaves.
so large.



1651. = Thysanocarpus. I remember among your Frem.
with very large fruit, woolly on the disk.

1634 is a new Viola, caulescent — with palmatifid
leaves; I do not remember it among Fremont's.

1661. Polygala — not yours of Frem.: — I send you
one of the specimens — keep it.

His Malvaceæ are all Sidalcea's only one new one — & that strengthens the genus. I shall write Bentham about these next week;

1670 is Hypericum Frem. between Scouleri & Buckleyi — a low, large-flowered one.
calyx &c. still woollier.
1677: is your Frem. E. 1846, the Limnanthes, n. sp. — see spec.
1678. " " 286, " — but slenderer & more scapoid..—
1683 new Ceanothus — wh. you have not.
1686. Rhamnus aff. R. oleifolius but whiter, like Olea.
One or two new Hosackias — Many Clovers — not new,

1706. = your Cercis.
1708. Photinia looks new — broader leaves.
1712. A curious, new, fern-leaved rosaceous shrub — for Benth., of which Frem. had the leaves only — I send you a piece — gets the naming, N.A. —
A new Godetia with obcordate petals.
1728. A new
nothing more new in Onagrariae —
1741. New Saxifrage, not in Frem.,
1740 Your Saxifr. peltata!
In Compositae — nothing strikes me as new, except perhaps a species or two. — I shall collate yours with them presently.

1834 New Primula —
Polemoniaceae — Several new ones — Benth. had better have his own among them.
Hydrophylls, are few & familiar.
1875 = √379, 1846. Frem. Scroph. I know it not.
Scroph's are many — but very few new.

Two Cupressi:
Taxodium semperv. in fine fruit. seeds shed
Leaves like my cult. plant.

As I collate these plants along,
I shall be able to furnish you specimens or
portions very frequently.

So, none of your new Genera are interfered
with by Hartweg.
You can well afford to let him name the
Limnanthes, — as he has probably done ere
this.

Carey is to come to-morrow — Friday —
or Monday.

In haste thine
A Gray

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In fact I get few new plants out of Hartweg for my money.

CAMBRIDGE
SEP
27
Ms.

V

Prof. John Torrey
Princeton
New Jersey

A
B
C Baccharis viminea DC. fert. fl.!
Before unknown
D
D E Limnanthes
E
D F Hypericum "Scouleri. dwarf?
or more likely n. sp."
G The new Bombaceous? genus, with sep. flowers
H
I.
K
L
M Layia (Callichroa) platyglossa
N. Senecio Californicus, DC.!
D O Artemisia "Californica Less. (& A. Fischeriana Bess. Ledeb.!"
P Matricaria discoidea
D Q Calycadenia virgata – n. sp. ~~Benth~~ "Benth. verging to Hemizonia – n. §."
R } Hemizonia decumbens, Nutt. pl. Gamb.
S }
* T Madaria elegans
U " " narrow leaved.
V Hemizonia n. sp. "combines § 5 & 6) (viscosissima) cfr. H. nudis Benth."
D W Calycadenia "– n. sp. 3 disk fl. one ray"
– uniradiata. J.T.
X Stephanomeria "paniculata Nutt. apparently"
Y
Z Alarconia helenioides DC.
= Hartweg 1784

T. (bis) Calycadenia "n. sp. connecting with §
Osmadenia."

Aa Bahia lanata – slender
D Bb " " β. tenuifolia
D Cc
Dd Baccharis consanguinea
Ee Chrysopsis – D. G. thinks new (Cr. lanata ? nov.
Ff Solidago multiradiata?
Gg Solidago Californica β.
Hh Linosyris graveolens – probably.
Ii Erigeron glaucum.
Kk Corethrogyne virgata Benth. Sulph.
D Ll Ranunculus – new to A. Gr.
D Mm Dendromecon rigidum
D Nn Romneya
D Oo Isomeris arborea Nutt.
Pp Erysimum asperum – apparently.
Qq Thysanocarpus n. sp.? (megacarpa?)
radians Benth. pl. Hartw. no. 1651
Rr Barbarea vulgaris (fl.) from radical shoots)
Ss Turritis glabra
Tt ~~Thysanocarpus n. sp.? (megacarpa?)~~
Lepidium n. sp. – aff. Lep. nitidum
Uu "Viola canina var. – adunca?"
D Vv Mesembryanthemum
Ww Sidalcea "humilis – I suppose" A. Gr.
Xx Frankenia grandifolia
Yy Polygala – scarcely either P. Nutkana or
P. Californica Nutt.
Zz

Aaa Ceanothus cuneatus Nutt.
Bbb " " thyrsifl. in fr.
Ccc Negundo Californicum
Ddd Trifol. fimbriatum. var.
Eee Linum Berlandieri ??
Eee Oxalis
Fff Trifolium megacephalum - small
Ggg Hosackia elata, Nutt.?
* Hhh " floribunda " ?
* Iii "(Syrmatium) toment.? perhaps different. Larger & sharper leaf.
Kkk. Phaca Douglasii
Lll Psoralea macrostachya
Mmm " strobilina
Nnn Adenostoma fasciculata
Ooo Cerasus ilicifolia
Ppp Oenothera (Godetia)
Qqq
Rrr - Oenothera (Godetia)
Sss = Ttt?
Ttt "Sicyos? = 199 Coult "
Uuu Peucedanum
Vvv
Www Lonicera hispidula
Xxx "Galium suffruticosum Nutt. but not Chilian sp. Call this G. Nuttallii"
Yyy
Zzz
D Ppp.(a)
× Jjj "Oxytropoides"
Hhh (bis) Lupinus versicolor
Lupinus

Aaaa Statice
D Bbbb Castilleja
Cccc
Dddd
Eeee
Ffff Pentstemon
D Gggg. Micromeria
Hhhh Trichostema?
D Iiii. Scutellaria
D Kkkk ~~Lat.~~ Scroph
Llll.
D Mmmm. Gilia
Nnnn
Oooo
D Pppp - (Solan. or Physal.
Pppp(a) ~~Erythraea~~ muhlenbergii (ex Benth)
Qqqq Abronia -
Rrrr
Ssss
Tttt
Uuuu Oreodaphne
Vvvv
Wwww Euphorbia
D Xxxx Tulipa?
Yyyy Trillium sessile?
Zzzz Allium

Xq. 1846. Lab
Xvi " Frankenia ?

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Fremonts ~~2nd~~ 3rd. Expedn.

East of Fort Laramie

[illegible]

15 Stanleya pinnatif.? very narrow)
62 Artemisia filifolia
22 Salix? B. 20 Lythrum
7. Mirabilis multif.
41 Senecio filifolius
D 68 Troximon glaucum Nutt.
39 Gaillardia pinnatif. β.
D 35 Aplop. rubiginosus T&Gr.
bractea imbric. invol
35(bis?) Hypericum nudiflorum
20 Chrysopsis canescens - narr. folia.
19/77 Chrysops. canesc. - very hispid!
33 Melampodium leucanthum
34 Helianthus petiolaris
6 Dieteria coronopif. 18 Fremontia vimin.
36 Dieteria viscosa 42 Oenothera lanata
36 Salvia
38 Aster laevis D. 45 Bartonia ornata
24 Obione confertif. β?
31 " novae angl.
12 " multifl. 82 Sidalcea humilis
64 " Nuttallii a new 20 Oxytrop.?
81 Engelmannia - 42 Solanum
85
88} Erigeron flabellum 63 Gilia
12 Aster oblongifolius β?
D 19 Kallstroemia maxima. 24 Gilia
D 54 Gutierrezia divaricata N.
22 Solidago lanata. 21 Hedeoma:
D 17 Linosyris graveolens
56. = 406? (Astrag. Missouriens.?)
80, 86 - Linum perenne
49 Rhus trilobata
25 Ceanothus incanus a new.
25 Physalis. 111 Croton.
132 Viola pedunculata
167 Aster adscendens
126. Argem. mex. (Gambel!
121 Helianthus Nutt. his sp. or ally
164 Arnica latifolia Bong
185 Crataegus rivularis
D 109 Artemisia filifolia
158 Pomac. - new to Afr.!
D ~~140~~ 141 (Ast.) Malvac. 128 Gentiana
140 Oxytropides 188 Sidalcea
106 Phaca argophylla
186 Gutierrezia Euthamiae
105 Dieteria pulverulenta
180 " " ?
D 160 Linosyris graveolens
156 Pachystigma (Raf.) myrsinites. α minor
175 Psoralea cuspidata
145 Dalea aurea
D 187 Salix longifolia
241 Gaillardia aristata
D 141 (~~Ast.~~ Calif.?) Malv.
294 ~~Amaranthus~~ ? [illegible] n. sp. pl. Fendl.
225 L. laxiflorus? new to Gr.
223 Baccharis salicina

298 Phacelia.
255 Dieteria pulverulenta prob.
244 Linosyris graveolens
235 Trifol. n. sp. minute invol.
236 " tridentatum Lindl.
223 Argemone Mexicana
269 Clematis pubesc. Benth. Hart. a new
228 Solanum Jacky.
218 Oenoth. gracilifl. - cal. tub. shorter
219 " contorta
224
221 Lupinus
302 Dysodia chrysanth.
D 369 Actinella Richardsonii - var
368 Oxytropoides
308 L. laxiflorus ? new to Gr.
367 Dieteria viscosa
393 Aster - seems n. sp.
386. Lepidium, Gray don't know?

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442 Nyctenium
444. Physalis
469. Eustoma Russel.
D 41 Sphaeralcea - new - = S. pedata
479 Ximenesia encelioides
D 404 Actinella Richardsonii
413 L. laxiflorus? new to Gr.
417 Aplopap. spinulosus
481. Dieteria viscosa
~~480~~ Lepidium alyssoides Gr. pl. Fendl.
406 Astragalus Missouriensis? ~~cf. 40 Fend~~
410 Sidalcea candida = var? (pl. Fendl.
D 418 " humilis Gr. (Sid. malvaefl. H.A
470 Argemone hispida Gr.
480 = 46 pl. Fendl. Is it Lepid. intg.
483 - Arkansana.
499 Cirsium undulatum
425 Abronia mellifl.

Fremont's plants examined by Dr. Gray

√140
√368 } 1845 "Oxytropoides" - He wants my names for them

√Kkk = Phaca Douglasii -

√106, 1845. P. argophylla

√473, 1846 Lupinus Menziesii, large?

√242 " L. gracilis

√262 " L. ornatus

112, 1844 Glued duplicate = "L. albifrons, I think"

√Hhh. ~~L.~~ cfr. L. versicolor

√ "Jjj - [Is it not 1846?) L. affinis?"

√225
√308 } 1845 are the same & new to my herbarium
√413 They may be L. laxiflorus

HERBARIUM COLUMBIA UNIVERSITY.

√ Fremont No. 428 (1846) = a new species of the typical section of Malvastrum (gen. nov.) which takes many American Malvae of DC. &c. — I will describe it in a note — to anticipate Bentham — or not, as you please to direct. The other species of the sect. in N. Amer. are M. coccineum (Sida, DC.) & var. dissectum. M. grossulariaefolium (Sida, Hook & Arn.) & M. Munroanum (= Malva Munroana, Dougl. & M. fasciculata, Nutt.)

Sida alceoides is a true congener of Malva (Nuttallia pedata — digitata &c. — which the internal process all the same!! ?) = Malva (Callirhoe) Michauxii. (the sp. name M. alceoides preoccupied.)

√ 476 (1846) = Sida hederacea. Torr. ined. etc. — It is the Malva Californica Presl. of which I have a bit, ~~but~~ & that is probably a little the earliest name — though I can't certainly tell. — Yes, I can; it was published (Vol. 2. livr. 2 ~~pp.~~ to p. 152. in 1835. [Vol. I - 1830 J.T.] so that after Hooker, or not? It will be as well to pass his name anyhow — although Nuttall's Sida Californica = Sidalcea of my Nov. in Pl. Fendl.

HERBARIUM COLUMBIA UNIVERSITY.

Prof. John Torrey
Princeton
New Jersey

CAMBRIDGE
AUG
31
Ms.

is not in print. N.B., please return.

149. Fendler. I have certainly seen this somewhere. Is it in your herb.? Is it A. Missouriensis?

(Top of legume of 148. Pl. Fendler.)

Above all, now, I want you to compare no. 146, Fendl. Pl. with A. pachycarpus, in your herb. The plant agrees quite well with your descr.—but you had not the flowers. Our plant from Fendl. has legumes much like those of A. caryocarpus in shape, only arcuate when young—& the walls are thin & in the dried sp. membranaceous & much inflated. The plant comes from Santa Fe.

I close this & send now, being so anxious about these Astragali, which I cannot study out till I hear from you.

Meanwhile let me say that your welcome parcel ~~from~~ of Pl. Fremont. came yesterday many thanks—

By Holton I sent a parcel containing your Matracea stuff & a few other things.

My messenger to P.O. waits impatiently. Yours ever, A. Gray

Pl. ~~Fr~~[illegible]

√ Fff. 1846. = Trifolium megacephalum, small

√ 235. 1845. Trifolium n. sp. – The minutest, abortive rim of an involucre at the base in the single head I have, connecting with the other section.

√ 236. " T. tridentatum. Lindl.

√ 443. 1846 – T. variegatum β. Torr. & Gr.

√ 426 " T. Heterodon ? (I have not that species Fimbriatum)

√ ~~Ddd.~~ ~~"~~ T. fimbriatum ~~var.~~

√ 354 " Hosackia grandiflora.

167 " ~~[illegible]~~

√ 207 " H. subpinnata.

√ ~~Ggg~~ ~~[illegible]~~ H. elata, Nutt. ?

√ ~~Hhh~~ " H. floribunda, Nutt.

Jjj. " Syrmatium tomentosum is perhaps distinct, larger pl- ~~sharper~~ & larger leaflets on the upper part.

√ 436 [illegible] " & [illegible] procumbens

480. 1845. – is ~~that~~ Lepidium of ~~[illegible]~~ Fendler's (L. alyssoides.)

406. 1845. Is not this Astragalus Missouriensis? Will you compare that I may know that species, of which I have no specimen.

√ 455. 1846 Astragalus glareosus, Dougl. ? (argophyllus. Nutt.) same in Spalding's Coll.: large specimens.

56. 1845. Is this the same as 406. 1845.? Please give me an idea of A. Missouriensis & compare this with no. 148. Pl. Fendl. One specimen of this pl. Fendl. has leaflets 1/2 to 3/4 inch long, & I suppose is "A. humilis, Geyer" Hook. & I suspect also A. Shortianus, Nutt. If you can tell me if it is, or is not Missouriensis. I will have it compared through Durand with A. Shortianus of that is in Phil. Acad. I add the tip of a legume. ~~[illegible]~~ of your spec. Fend.

P. S., [illegible] Have you any fruit of Malvastrum? I shall be obliged to figure that without the [illegible] if you have not —

[illegible] UNIVERSITY

Fremont's Pl. Dr. Torrey

✓ 8 (& 470 (1845) From the fruit I am all the more set in my belief that this Argemone hispida is a good species. Do any of your spec. show whether it is a perennial?

✓ 126. (✓ 223) A. Mexicana.

Romneya!

Dendromecon = β. lanceifolium, Hartw.!

✓ 305. Esch. hypecoides — small

✓ 401 " californica.

✓ 233. " immensely large flower — must be new.

✓ 304 Platystemon

✓ 339 Dielytra formosa

✓ 175 Corydalis aurea.

✓ 345. Berberis Aquifolium.

✓ 149 Delphinium variegatum T. & Gr.

✓ 505. D. — I know not.

✓ 205 } D. Menziesii, probably
✓ 249 }

✓ 485 Agrees with D. simplex β. Hook & Arn. Beech. Suppl.

✓ 449 D. nudicaule

✓ 423 D. simplex var.

✓ 367 Paeonia Brownii

✓ 140. Ranunc. dissectus. Hook & Arn. Beech.

✓ L.l. 1846. R. New to me!

✓ 235. Clematis lasiantha. Nutt.

✓ 269 (1845) New, or C. pubescens, Benth. Hartw.?

✓ Ob. Isomeris.

✓ 104. Cleome integrifolia.

✓ 225. Polanisia trachysperma.

✓ 384 (1846) is a Crucif. new to me. Genus not clear.

✓ Pp. (1846) Erysimum asperum apparently.

✓ 154 " Cardamine angulata?

✓ R.v. " Barbarea vulgaris? flowering from radical shoots.

306 (") Thysanocarpus elegans.

22. " T. — n. sp.? — The largest fruit I know. (T. megacarpus)

✓ 417 (1846) Thlaspi montanum. (Silicle only 3-5 ovuled.

✓ 55. " Turritis glabra — fruit only (Cf. T. macrocarpa, Nutt.

✓ 203. " Aspidocarpum new. — Septum perfect?

✓ 125 " All ripe fruit. — Don't know. Apparently a Turritis (Cf. T. spathulata, Nutt.)

✓ 74. " Lepidium new. aff. L. nitidum.

✓ 224. " Barbarea vulgaris or arcuata?

✓ 15 (1845) Stanleya pinnatifida? very narrow.

✓ 129 " Sisymbrium canescens var.?

✓ 386. " Lepidium, I don't. just identify with any of mine,

✓ 480 " L. — same as the no. 46, Pl. Fendler — I gave you fragments of. Please see if either agree with L. integrifolium, Nutt. in your herb.

✓ 132 " Viola pedunculata.

✓ 373 (1846. V. Nuttallii, Hook.

✓ New " V. canina var. or adunca?

✓ 35 (1845) Hypericum nudiflorum.

✓ 1846. H. Scouleri dwarf? or n. species. more likely.

✓ 3 (1845) = Silene stellata.

84 (1846) Alsine Douglasii Fenzl. (Ar. trichoidea Nutt.?)

Fremont.

√467, 1846 = Lonicera involucrata.

11. 1845 Symphoric. glomeratus.

Num. 1845 (meaning 1846) Lonicera hispidula!

√ 55. " Cephal. occid.

√ *** 1846 Galium suffruticosum Nutt. ex char. – Compare it.
There is a Chilian G. suffruticosum – therefore call
Nutt's. – in your Ex. Exped. – G. Nuttallii.

√ 316. " Plectritis macrocera.
N. B. I believe the Spalding plant is macrocera also.

The two following, being out of place – viz. appended to a parcel of Mex. plants, I only found now.

√ 499(a) 1846 = Rhamnus oleifolius with a ~~more~~ whiteness – on the under side of the leaves not in the Douglas or Coulter plants, except a mere trace.

√ 499, 1846. – A still more white hoary plant, which at first I thought quite distinct. – but in flower & probably growing less white as it fruits. –

Besides: Hartw. Calif. 1686 – (which I divide with you) is intermediate. You can see if you think all together distinct from R. oleifolius.

I have nothing ready to send to Bentham – but your parcel of Leguminosae & Labiatae. – As I shall not send for about 3 or 4 weeks to London I will send that back to New York for you – if I have a chance to send a parcel soon. – If not, it shall go soon.

Quære? Is not the Lupinus which Carey calls L. aridus, in Spalding – the L. holosericeus, Nutt.?

Dr. Torrey

I have just despatched a letter, but am obliged to begin again.

In sending Œnotheræ, I should like to have you send the § Pachylophus, especially Œ. marginata & montana. — If you have no 228. Hartw., you will notice a remarkable species, which I took for Œ. marginata — but the pods (& whole plant) are large & sessile. &c — It is a striking plant.

(Œ. lavandulæfolia is I think in Gregg's coll. from Buena Vista — also two new ones, but too imperfect to venture on yet.

Fremont
Œ. (Primulopsis) ovata, Nutt.
√125. 1846 = Œ. graciliflora. shorter tube to calyx.
√218 – 1845. = apparently Œ. dentata, Torr & Gr. Fl. –
√172 1846 = but more pubescent.

— Compare the spec. enclosed with Œ. pumila, Nutt. in yr herb. — I think they are the same.

√219. 1845. Frem. is the same. viz. Œ. contorta.

441. 1846. } Are Œnothera Godetia. sp.
√435 " } Look pretty well-marked, — but — tenella Cav.?
√Pyp " } I dare not attempt to name them
√Ross. " } without more study than I can give now —

Probably you have them all worked out for the Ex. Exped.!

√430 " = Eucharidium The first wild specimens I ever saw.! I have made cultivated ones for you this season.

TORREY HERBARIUM COLUMBIA UNIVERSITY.

√ 482, 1846 = Clarkia elegans.

A Sida from Key West, Blodgett = S. ciliaris, L.
(cf. S. involucrata A. Rich. H. Cub.) (Cav. diss.)

It is near your S. fasciculata, from Tex., — & which I
have a bit in flower only (no fruit) — which is much larger
than in S. ciliaris — & not such fine ciliate-hispid stipules.
the corolla apparently rose-color. —
Another is Sida supina, L'Her. (well figd. in Cav. diss. as S. ovata.))
A Greggian species, from 2 or 3 localities is apparently a var.
of the same, with the young branches &c sparsely pilose with
long soft hairs. — It might well be S. diffusa H. B. K.
but the flowers are pretty large for the plant, & yellow, not
"pani violacei."

Sida hispida, Pursh; Hook. & ~~Gray~~ St. Louis — Malva per-
pulla Nutt. mss. in Herb. Tor. is a Malvastrum.

Gregg. — "near Patos, May 19/47" = a new Malva (Callirhoe
as to my speci-
§*.) but insufficient safely to describe from, — & without anything like fruit.
men. Is yours a pretty good one?

Gregg's Abutilon — from "Monterey &c." Is it your A. Texanus
of Flora? I have it from Texas & in cultivation
with the inflated calyx, it may, & a new sect. of Sida.
the name which would be best, S. physaloides, is preoccu-
pied by Presl for an allied Mexican species &
from "Walnut Grove — May 26," I have also
from Texas, Lindh. — & am going to figure for Genera.
It must form a new genus — along with a remarkable
2nd species from Mexico, Coulter Coll. — between Physo-
dium Presl. & Mahernia — if indeed it does not
fall into that Cape genus. — If not I mean to
dedicate it to Sprague.

~~Ferula~~ —

√ 259, 1846. Sanicula bipinnatifida.
√ 156 " S. arctopoides.
√ 237 " Peucedanum utriculatum.
√ 487 " Edosmia Gairdneri.
√ " 222, 1845. Is it not 1846? For it is, to all appearance, the same as No. 1751. Calif. Hartweg, of which I have old young fruit,— & which is probably "Ferula macrocarpa", Hook. & Arn. young & more downy, or a new species (not Peucedanum macrocarpum, Nutt.—which, is a Spalding plant with flowers only, is it, as I suppose, has very long involucels — longer than the rays.) ~~I should~~

√ 425, 1846. Daucus pusillus, var. } Umbellif. that I know nothing of.
√ 383 "
√ 349
97 "

Sunday Evening, Oct. 2d

Dear Doctor — I take up, on this sheet, the needful points in your letter received ~~Saturday~~ ~~[illegible]~~ this morning.—

I shall begin to print Fendler Plants in a week or 2 weeks — get up 8 pages & send proofs to you & Engelmann before it is struck off, — [illegible] with Lindheimer's Wright's Tex. Plants — will be named

To-morrow, when I go to College I will get Sloane & P. Browne for Lane to copy.—

Keep back Griffin, Carey says, till he returns to N.Y. Too late to send to Boott by this steamer, which we have just written by.

Don't forget to send the Martrelias —

Torr

In your article for Smithsonian. I see not why you should hesitate to publish all the Calif. & other new plants you wish, with or without figures. Do I understand you also as wishing to anticipate that by publishing brief diagnostic characters of them now, as many of them, right away? Perhaps you might — as soon as you have studied them carefully out. —

But, where the plants in question are not in Hartweg's Calif. Coll. I do not think you are likely to be anticipated. And the cases in which he has your novelties, I ~~think~~ have shown you are very few — & do not touch any of your interesting materials, except the two Limnanthes, & the singular new Rosacea & the Saxif. peltata. — As to these, I should say that, since Benth. mentioned the two new Limnanthes in his letter to me of June 9th — & since it is his genus, I would by courtesy let him name those. — I think he has a right to the Rosaceous genus, as he spoke of it at that date, & told you, before you made it out, that he had studied that family already, & you have only made it out after getting a portion of Hartweg's specimens. Still I would figure this genus in Smithsonian among the rest. As to the Saxifrage, that belongs to you most clearly, & if you communicate it your name to Bentham, he will respect it & adopt it. Besides, to make sure of this or others, you can either prepare a short article somewhere — or, what would be better, as you wish merely to save them without destroying the novelty of your Smithsonian memoir — just finish your characters of the things in question, & append them as notes, along where they come in, in Pl. Fendlerianae. —

Bentham has not mentioned the name of the Rosaceous genus. — You can ask him for it, when you write to him of your novelties.

Are you sure of a western Echinocystis? When yo
reexamine I will send you my fruiting Russian plan,
which cannot be an Echinocystis; nor hardly an Elaterium.
Coulter's sp. has no ripe fruit.

The Hypericum rigidum you can secure by send
the name to Buckhorn or by giving me a character
to append in Pl. Fendl. note. —

There is neither an H. rigidum, nor a H. linifolium
in Steudel's manual.

I know nothing of the Cercis as compared with C. Siliqu
But I cannot think an oriental plant native in Calif.

I thought I mentioned that Sprague cannot work
at Fremontias more till he finishes the Genera plates
he is now at. He is full till the 1st Nov. say, quite.
Then comes your turn for the 12 plates &c. Then,
if engaged, he will take up the Expl. Exped. for you —
Drayton has been here. Sprague wants $12.
a piece for folio plates filled with dissections whi
he has to study out all himself. — Drayton wants h
to engage for $10. He could do them for $10. & un
willingly, if there were not much more dissections than
on Fremontia Calif. — &c — I am unwilling that
he should engage to do all for — when I may sometimes
crowd a plate full of analyses.

For "Coulterian specimens" in your letter, read Hart
wegian. I shall not want to send in your box to
Hooker — there is nothing now ready, & I can send by
steamer from Boston. I do not hesitate to send Seed
& matters for others under Hooker's privilege.

Mary & Jane send best regards & love to all —
It is late & I must close. Thine ever

A Gray

HERBARIUM COLUMBIA UNIVERSITY

Fremont's Pl. –

√ Separate flowers of a Bombaceous plant, coll. Fremontia. – Surely these flowers appear to belong to a Bombaceous plant – though I see the anthers are introrse.

I think it likely too that they belong to the simple leaved plant G. 1866. – (of which I lay aside your specimen to return) – I do not give it up as not Bombaceous because the ovary is one celled. & the fruit 1-seeded.

In the ovary I notice that there is a basilar placenta bearing numerous anatropous ovules:

One hesitates, till one could be sure that the flowers belong to the plant G.

I see no farther light at present.

Then that plant of Fremont's, with simple opposite leaves – of which you give me fruiting specimens, & describe the flowers. – You do not say whether the stamens are monadelphous – If not or any how, – I do not see how it can be Bombaceous – nor can I guess what it is. – But I will keep it in mind, and if any light breaks in I will let you know.

(Sonora Alta)

In Coulter's Mex. Coll., I have a Kallstroemia – like the one you mention from Emory – The leaflets are 12. and stalks & calyx hispid with long hairs. Is it the Ehrenbergia tribuloides. Mart. Nov. Gen. Bras. 2. p. 73. t. 163. (I have not access to). –

Sphaeralcea stellata, Torr. & Gr. Smaller-flowered, mealy, but I see not how otherwise distinguished from S. angustifolia (Malva angust. Cav.)

{ Your Sph. incana — Hort. is new to me.* —
" S. miniata " Syn. n. is S. Fendl. n. 78.

√ 411, 1845 Fremont is a new Sphaeralcea — which ought to be called S. pedata.

That Dalea — Fen. I have taken as D. nana, Torr. ined. — as I find it is also in Texas — Lindheimer. — The structure of flowers it is D. aurea nearly — but must be a spec.

---

*. On comparing the plate & descr. I suspect that it is Malva miniata, Cav. Ic. 3. t. 278. Sphaeralcea miniata. Spach. but can't be sure. — And as the two spec. only differ as to pubescence — I think I will refer them to S. miniata — Cav. figures the flowers larger, — but his is from the cultivated plant. —

Plantae Fremontianae (1845)

(3rd Exped^n) East of Fort Laramie

(of the portion sent back by D. Macdonald.)

126
134 } Argemone mexicana β. July 15 – Pawnee Rock

158
163 } Cleome integrifolia

225
166 Polanisia trachysperma β. ?

203
214 } Erysimum asperum

244. Stanleya integrifolia

37 Silene stellata

460
163 } Portulaca oleracea

121 Linum

207 Linum

17 Oxalis stricta,

104 Viola cucullata (in fl.)

34, 49.
48, 35 } Hypericum nudiflorum?
51, 52,

127 } Vitis riparia
61
168 Vitis

128 } Sida coccinea
65

10 Aesculus glabra

31. Ceanothus

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Plantae Fremontianae
1845.

Spartina cynosuroides
Elymus Canadensis
Panicum Crus-galli
Atheropogon apludoides
Panicum virgatum
Leptinus, [illegible]
[illegible]

The underscored (figs.) are in Bentham's set.

428. Malvastrum Fremontii Gr. in Fendl.

D. 494 Calycanthus occident.

D 464 Amelanchier Canad. δ.

D 478 Hemizonia n. sp. aff. pung.

473 Lupinus Menziesii? large

498 Erigeron (Bendevig.) Douglasii

D 452 Grindelia squarrosa (approaching G. robusta Nutt.

443 Trifolium variegatum β T. & Gr.

426 Trifol. heterodon? ~~fimbriatum~~

431 Syrmatium junceum

455 Astragalus glaucus Dougl. (argophyll. Dougl.)
= Spalding's Coll.

D 468 Ceanothus integerrimus Hook. & Arn.

D 468 Arbutus.

493 Ceanothus rigidus Nutt. [3 var.] with large leaves

457 Vicia Americana β. (& Oregana)

416. Lathyrus – new to Dr Gray

D 432 Sidalcea diploscypha.

D 428. Malvastrum Fremontii n. sp. (see Gr. pl. Fendl.)

476 Sida hederacea Torr.

401 Eschscholtzia Californica

D (4208) 459 Paraphyllum ramosissimum Nutt.

D 417 Thlaspi montanum (Silicle 3-5 ovuled)

485 Delphinium simplex β. Hook. & Arn. – prob.

449 Delphinium nudicaule

423 Delphinium simplex var.

420 Sanicula arctopoides

D 441 Oenothera (Godetia)

435 Oenothera (Godetia).

D 430 Eucharidium

482 Clarkia elegans.

406

466 n. gen.

D 466 (vera) n. gen. Portulac.

D 447 Ribes cereum – young

D 489 Echeveria lanceolata?

413 Lithophragma glabra Nutt. (cf.)

D 467 Lonicera involucrata

499/2 (a) Rhamnus oleifolius – leaves scarcely white
underneath

499/2 Rhamnus oleifolius – still white underneath

Hartweg 1686 unites this with oleifol

487 Edosmia Gairdneri

425 Daucus pusillus var.

#~~[illegible]~~

D 429 [illegible] grandiflorum

D 480.

D 407. Pentstemon -

D 479 Orthocarpus

D 436 Collinsia

D. 465. Æsculus Californica, Nutt.

D. 456. Gilioid

D 446. (monardella?]

D. 415 Phlox)

D. 434 Scutellaria

D 493(6) Ceanothus confertifolius? -

483 (Crucif.)

454 Avena

469 Allium

~~486~~ 405 Delphinium

429

421 Orthocarpus

481. Nicotiana

402 Gilia or Phacelia.

475 Gilia

471 Gilia

493 Linaria?

403 Lupinus

496 Psoralea orbicularis Lindl.

139. 151. Glycyrrhiza lepidota
171-83 Psoralea cuspidata Ph. (cryptocarpa) ?
27, 26. Psoralea esculenta -
15 – – argophylla
6 —— near floribunda
101 ——
84 Desmodium. n. sp.? (reticulatum)

77. } Dalea laxiflora
91 } 92

148, 145 } D. lanuginosa
132, 68 }

22, 242. Petalost. violaceum
25, 32 (bis), 12

32. Petalost. candidum

79, 80. } Darlingtonia
23, 181 }

22 } Baptisia
20 }

172. Phaca. n. sp.?

212, 106. Phaca (densely tufted & silvery) n. sp.

1, 33. Amorpha canescens

103. Lupinus

76, 82 } Cassia cham.
83
46, 75 }

206 Hoffmanseggia Jamesii (Pomaria glandulosa Torr.)

85 } Schrankia
67 } 38, 131

188 } Ceratium – [illegible]]
196 }
29 Geum Virginianum

95, 105. Gaura

174 Gaura

29. Myriophyllum

20, 18, } Lythrum
71, 74 }
54, 67, 68

82, 243 }
174, } Mentzelia nuda
149 }

79, 240, 215, ornata –

123, 124 – oligosperma

122, 144. Ribes

[[illegible] Benth. Pl. Hartw. No. 1710.)

370 "Pomac. aff. only 1 style - quite new to Afr. Lotus

D 374 Artemisia frigida

375. Oreosphila -

D 399 Cirsium undulatum (C. Douglasii DC.)

393 Achyrachaena mollis

357 Ceanothus sorediatus Hook.

373 Viola Nuttallii. Hook.

369 Paeonia Brownii

D 384 Crucif. - genus? new to Dr Gray

372 Ribes Californicum H&A

379 = 1875 Hartweg Calif. Scroph. new to Afr

383 Umbellif. Gray don't know.

~~376~~ 364 Quercus densiflora Hook. & Arn

397 Lupinus

D- 376 Peucad. -

390 Genus 3-fl.

D 380 Leucocrinum

D 332 -

D 381 Sisyrinchium grandifl.

D 348

D 361. Collinsia 362 Hosackia grandifl.?

D 386. Artemisia tridentata.

D. 377. Phlox

307 Anthemis.

360

358. Pedicularis 359. Ceanothus

368 Arbutus

underlined = Bentham
D = Determined

D 501 Photinia

D 505 Calycadenia cephalotes DC.

D 511 Philadelphus Lewisii

505 [bis Delphinium - Gray don't know.

D 504 Clematis lasiantha Nutt

D 510. (Mimulus

D 509 (Mimulus)

D 507 Gilia

D 506 (Lab.)

500 Quercus

"Tolumne River 1846.

"Prep. D. 1846"

"Sacramento April 11. 1846" Gilia

"April 14 Valley of Sacramento. Lupinus

no 8. Eryngium –

~~190 Solidago juncea~~

50. Cornus

55, 58. Cephalanthus occid.

60} Sambucus
34}

Symphoria –
56, 57 Symph. glomerata.

36, 130} Hedyotis stenophylla
64 }
10. Galium circaezans

14, 5} Lobelia Clayt.
23 }

190 Soledad gaimañana

Pl. Fremont.

√ 180 (1846) Calandrinia Menziesii.
√ 258 Claytonia parviflora Dougl. ~~(gypsophiloides, F. & M.)~~
√ 188 C. perfoliata, with unusually large fr.

I have the true C. gypsophiloides from St. Petersb. Acad. [illegible]

N.B. The Claytonia sp. of Spalding's coll. of which you have notes from Carey, is a large C. exigua, Torr. & Gray, — to which belongs all the C. spathulata, Hook. N. Am. Bot. Beech. Suppl. — The true C. spathulata Hook, is I suspect the C. gypsophiloides F. & M. — smaller, but than that has a large corolla – much exceeding the calyx, – which Hooker's figure does not, — Hooker again confusing calls no. 478, Geyer, C. spathulata, while it has alternate leaves – & is C. dichotoma Nutt. I suppose introduced.

√ Mesembryanthemum (Pres. 2.)
Pres 1. Frankenia grandifolia.

√ 580 & √ 86 (1845) Linum perenne.
√ Ecc. 1846. L. Berlandieri ?

P.S. Notwithstanding the note affixed to Wislizenus's [illegible] you have not given Geranium Fremontii in Fr. 2d. Report. — In fact have not published, have you? Should not you now adopt Engelmann's name of G. [illegible]

~~[illegible]~~

~~[illegible]~~

Will you copy me the name & char. of your Rhus of Oregon, near to R. glabra? — Is it the same as no. 97. Pl. Fendl.?

√ 398 (1846) Rhus diversiloba.
√ 49 & Aug. 22. 1845. = R. trilobata, Nutt. = Torr. as in part of Pl. Fendl.

HERBARIUM COLUMBIA UNIVERSITY

19, 1845. This is the real Tribulus maximus Linn. — who took the absurd specific name from Sloane's "flore maximo", tho' Sloane says it is not so large as in the other. — the ~~Key West~~ one, — which is Tribulus cistoides L. — a true Tribulus.

V 156, 1845. = Pachystima, (Raf. Endl.) Myrsinites — a minor Hook. — How much smaller & rounder the leaves are than in Pl. Fendl. B, major.

V 468 (1846) = Ceanothus integerrimus Hook. & Arn.!
493 " " rigidus Nutt. with still larger leaves.
Caa " " cuneatus, Nutt. (I have no specimens of the original,)
V 211 " " cuneatus B. macrocarpus!
Bbb " " thyrsiflorus in fruit,
357 " " sorediatus, Hook.
V 25 1845. Dec. " ? an incanus? or new, undescr'd.

19, 1846. Polygala — don't wholly agree with P. Nutkana DC. or P. Californica Nutt. !!

457, 1846. Vicia Americana B. (& Oregana)

Have you Pl. Fendler's no. 186 Is it like Lathyrus [illegible], Nutt.? The stipules are entire. — that is of little moment, though, — and the tendrils are obsolete.

16, 1846. Lathyrus, new to me!!
75, 1845 — Psoralea cuspidata.
11. 1846 " macrostachya.
" " strobilina
45 1845. Dalea aurea.

No. 180, Fendl. (of which there are no specimens distributed) is the same as plant of Fremont's 3d. coll. 1845 — sent home from Bent's Fort & [illegible]

in flower almost exactly Dalea aurea, but has small & lax heads, sessile on the branches — and is a low & diffusely spreading plant. the upper surface of the leaves not green. Compare in herb. with your D. aurea — see if you have anything intermediate, & if not, I will venture it as a species, send me a name, which I will adopt.
(D. Fremontii?)
— Send soon.

√432 (1846) = Sidalcea diploscypha.
√410 (1845) Sidalcea = a var. of my S. candida (see 2v. 80. Pl. Fendl. & compare your specimens) or a new species.
√418 & 82 (1845) = Sidalcea humilis. (Sida malvaeflora, Hook & Arn. Bot. Beechey, Suppl. etc. — S. delphinifolia, Nutt.)
√Wr. 1846. = Sidalcea humilis, I suppose. —

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